STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI
GOVERNOR

DAVID P. LITTELL
COMMISSIONER

July 6, 2006

Mr. Robert Waterman
Portland Water District
225 Douglas Street, P.O. Box 3553
Portland, ME 04104

RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0102121
Maine Waste Discharge License (WDL) Application #W006751-5L-D-R
Final Permit
Cape Elizabeth WWTF

Dear Mr. Waterman:

Enclosed please find a copy of your **final** combination MEPDES permit/Maine WDL which was approved by the Department of Environmental Protection. Please read the permit/license and its attached conditions carefully. You must follow the conditions in the order to satisfy the requirements of law. Any discharge not receiving adequate treatment is in violation of State Law and is subject to enforcement action.

Any interested person aggrieved by a Department determination made pursuant to applicable regulations, may appeal the decision following the procedures described in the attached DEP FACT SHEET entitled "*Appealing a Commissioner's Licensing Decision.*"

If you have any questions regarding this matter, please feel free to call me at 287-7693.

Sincerely,

Gregg Wood
Division of Water Quality Management
Bureau of Land and Water Quality

Enc.
cc: Fred Gallant, DEP/SMRO
Sandy Lao, USEPA

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826
RAY BLDG., HOSPITAL ST.

BANGOR
106 HOGAN ROAD
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769-2094
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STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
STATE HOUSE STATION 17 AUGUSTA, MAINE 04333

DEPARTMENT ORDER

IN THE MATTER OF

PORTLAND WATER DISTRICT	)	MAINE POLLUTANT DISCHARGE
CAPE ELIZABETH, CUMBERLAND	)	ELIMINATION SYSTEM PERMIT
COUNTY, MAINE	)	
PUBLICLY OWNED TREATMENT WORKS	)	AND
ME0102121	)	WASTE DISCHARGE LICENSE
W006751-5L-D-R **APPROVAL**	)	**RENEWAL**

Pursuant to the provisions of the Federal Water Pollution Control Act, Title 33 USC, Section 1251, et seq. and Maine Law, 38 M.R.S.A., Section 414-A et seq., and applicable regulations, the Department of Environmental Protection (Department hereinafter) has considered the application of the PORTLAND WATER DISTRICT (PWD hereinafter), with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

The PWD has submitted a timely and complete application to the Department to renew combination Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0102121/ Maine Waste Discharge License (WDL)#W006751-5L-C-R, (permit hereinafter) which was issued on December 17, 2001, and is due to expire on December 17, 2006. The permit approved the monthly average discharge of up to 0.499 million gallons per day (MGD) of secondary treated waste water from a municipal waste water treatment facility to the Peabbles Cove, Class SB, in Cape Elizabeth, Maine.

PERMIT SUMMARY

This permitting action is carrying forward all the terms and conditions of the 12/17/01 permit. In addition this permit is:

1. Establishing a requirement to maintain a current Operations & Maintenance (O&M) plan.

2. Establishing a requirement to maintain a current Wet Weather Flow Management plan.

3. Revising the Whole Effluent Toxicity (WET) and chemical specific testing based on revised Department Rules Chapter 530 *Surface Water Toxics Control Program,* and Chapter 584, *Surface Water Quality Criteria for Toxic Pollutants*, promulgated October 2005.

4. Establishing a requirement to monitor the discharge from the plant's influent pump station as well as establishing a requirement to submit a scope of work and schedule to eliminate said bypass.

CONCLUSIONS

BASED on the findings in the attached Fact Sheet dated May 22, 2006, and subject to the Conditions listed below, the Department makes the following CONCLUSIONS:

1. The discharge, either by itself or in combination with other discharges, will not lower the quality of any classified body of water below such classification.

2. The discharge, either by itself or in combination with other discharges, will not lower the quality of any unclassified body of water below the classification which the Department expects to adopt in accordance with state law.

3. The provisions of the State's antidegradation policy, 38 M.R.S.A., Section 464(4)(F), will be met, in that:

   a. Existing in-stream water uses and the level of water quality necessary to protect and maintain those existing uses will be maintained and protected;

   b. Where high quality waters of the State constitute an outstanding national resource, that water quality will be maintained and protected;

   c. The standards of classification of the receiving water body are met or, where the standards of classification of the receiving water body are not met, the discharge will not cause or contribute to the failure of the water body to meet standards of classification;

   d. Where the actual quality of any classified receiving water body exceeds the minimum standards of the next highest classification, that higher quality will be maintained and protected; and

   e. Where a discharge will result in lowering the existing quality of any water body, the Department has made the finding, following the opportunity for public participation, that this action is necessary to achieve important economic or social benefits to the State.

4. The discharge will be subject to effluent limitations that require application of best practicable treatment.

ACTION

THEREFORE, the Department APPROVES the above noted application of the PORTLAND WATER DISTRICT, to discharge up to a monthly average flow of 0.499 MGD of secondary treated sanitary waste waters to Peabbles Cove, Class SB, SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations, including:

1. "*Maine Pollutant Discharge Elimination System Permit Standard Conditions Applicable To All Permits*," revised July 1, 2002, copy attached.

2. The attached Special Conditions, including any effluent limitations and monitoring requirements.

3. This permit expires five (5) years from the date of signature below.

DONE AND DATED AT AUGUSTA, MAINE, THIS 5TH DAY OF JULY, 2006.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
DAVID P. LITTELL, Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: May 10, 2006.

Date of application acceptance: May 15, 2006.

FILED
JUL - 7 2006
BOARD OF ENVIRONMENTAL PROT.
STATE OF MAINE

Date filed with Board of Environmental Protection _____

This order prepared by Gregg Wood, BUREAU OF LAND AND WATER QUALITY

W67515LD 7/5/06

SPECIAL CONDITIONS
A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. The permittee is authorized to discharge secondary treated waste waters to the tidewaters of Peabbles Cove from **Outfall #001**. Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations						Minimum Monitoring Requirements	
	Monthly Average as specified	Weekly Average as specified	Daily Maximum as specified	Monthly Average as specified	Weekly Average as specified	Daily Maximum as specified	Measurement Frequency as specified	Sample Type as specified
Flow *[50050]*	0.499 MGD *[03]*	---	Report (MGD) *[03]*	---	---	---	Continuous *[99/99]*	Recorder *[RC]*
Biochemical Oxygen Demand (BOD_5) *[00310]*	125 #/day *[26]*	188 #/day *[26]*	208 #/day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	50 mg/L *[19]*	1/Week *[01/07]*	Composite *[24]*
BOD5 % Removal (1) *[81010]*	---	---	---	85% *[23]*	---	---	1/Month *[01/30]*	Calculate *[CA]*
Total Suspended Solids (TSS) *[00530]*	125 #/day *[26]*	188 #/day *[26]*	208 #/day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	50 mg/L *[19]*	1/Week *[01/07]*	Composite *[24]*
TSS % Removal (1) *[81011]*	---	---	---	85% *[23]*	---	---	1/Month *[01/30]*	Calculate *[CA]*
Settleable Solids *[00545]* *(June 1 – Sept. 30)* *(Oct. 1 – May 31)*	--- ---	--- ---	--- ---	--- ---	--- ---	0.3 ml/L 0.3 ml/L *[25]*	1/Day *[01/01]* 5/Week *[05/07]*	Grab Grab *[GR]*
Fecal Coliform Bacteria (2) *[31616]* *(May 15 – Sept. 30)*	---	---	---	15/100 ml (3) *[13]*	---	50/100 ml *[13]*	1/Week *[01/07]*	Grab *[GR]*
Total Residual Chlorine (4) *[50060]*	---	---	---	0.1 mg/L *[19]*	---	0.23 mg/L *[19]*	1/Day *[01/01]*	Grab *[GR]*
pH (Std. Units) *[00400]* *(June 1 – Sept. 30)* *(Oct. 1 – May 31)*	--- ---	--- ---	--- ---	--- ---	--- ---	6.0-9.0 6.0-9.0 *[12]*	1/Day *[01/01]* 5/Week *[05/07]*	Grab Grab *[GR]*

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

SURVEILLANCE LEVEL TESTING **– Beginning upon permit issuance and lasting through 12 months prior to permit expiration.**

Effluent Characteristic	Discharge Limitations				Minimum Monitoring Requirements	
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Whole Effluent Toxicity[5]						
Acute – NOEL *Mysidopsis bahia* [TDM3E] *(Mysid Shrimp)*	---	---	---	Report % [23]	1/2 Years [01/2Y]	Composite [24]
Chronic – NOEL *Arbacia punctulata* [TBH3A] *(Sea urchin)*	---	---	---	Report % [23]	1/2 Years [01/2Y]	Composite [24]
Analytical chemistry[6] [51168]	---	---	---	Report ug/L [28]	1/2 Years [01/2Y]	Composite/Grab [24]

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

SCREENING LEVEL TESTING **- Beginning 12 months prior to and lasting through permit expiration and every five years thereafter.**

Effluent Characteristic	Discharge Limitations				Minimum Monitoring Requirements	
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Whole Effluent Toxicity[5] **Acute – NOEL** *Mysidopsis bahia* [TDM3E] *(Mysid Shrimp)*	---	---	---	Report % [23]	2/Year [02/YR]	Composite [24]
Chronic – NOEL *Arbacia punctulata* [TBH3A] *(Sea urchin)*	---	---	---	Report % [23]	2/Year [02/YR]	Composite [24]
Analytical chemistry[6] [51168]	---	---	---	Report ug/L [28]	1/Quarter [01/90]	Composite/Grab [24]
Priority pollutant[7] [50008]	---	---	---	Report ug/L [28]	1/Year [01/YR]	Composite/Grab [24]

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Footnotes:
Sampling Locations:

Influent sampling for BOD_5 and TSS is being sampled after screening and grit removal.

Secondary effluent sampling- For flow, biochemical oxygen demand, total suspended solids, settleable solids and pH samples shall be collected from the effluent wet well. Fecal coliform and total residual chlorine samples shall be collected at the dechlorination structure at Peabbles Cove.

Any change in sampling location(s) must be reviewed and approved by the Department in writing.

Sampling –Sampling and analysis must be conducted in accordance with; a) methods approved in 40 Code of Federal Regulations (CFR) Part 136, b) alternative methods approved by the Department in accordance with the procedures in 40 CFR Part 136, or c) as otherwise specified by the Department. Samples that are sent out for analysis shall be analyzed by a laboratory certified by the State of Maine's Department of Human Services.

1. **Percent removal** – For secondary treated waste waters the facility shall maintain a minimum of 85 percent removal of both BOD_5 and TSS. The percent removal shall be based on a monthly average calculation using influent and effluent concentrations. The percent removal shall be waived when the monthly average influent concentration is less than 200 mg/L. For instances when this occurs, the permittee shall report "*NODI-9*" on the monthly Discharge Monitoring Report (DMR).

2. **Fecal coliform bacteria** - Limits and monitoring requirements are seasonal and apply from May 15th to September 30th of each year. The Department reserves the right to impose year-round limitations and monitoring requirements to protect the health and welfare of the public.

3. **Fecal coliform bacteria** – The monthly average limitation is a geometric mean limitation and values shall be calculated and reported as such.

4. **Total residual chlorine (TRC)** – TRC limitations and monitoring requirements are applicable anytime of year in which elemental chlorine or chlorine based compounds are utilized as disinfectants. TRC shall be tested using Amperometric Titration or the DPD Spectrophotometric Method. The EPA approved methods are found in Standard Methods for the Examination of Water and Waste Water, (most current approved edition), Method 4500-CL-E and Method 4500-CL-G or U.S.E.P.A. Manual of Methods of Analysis of Water and Wastes.

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Footnotes:

5. **Whole Effluent Toxicity (WET) Testing** – Definitive WET testing is a multi-concentration testing event (a minimum of five dilutions bracketing the critical acute and chronic water quality thresholds of 5.7% and 1.3%, respectively), which provides a point estimate of toxicity in terms of No Observed Effect Level, commonly referred to as NOEL or NOEC. A-NOEL is defined as the acute no observed effect level with survival as the end point. C-NOEL is defined as the chronic no observed effect level with survival, reproduction and growth as the end points.

   a. **Surveillance level testing** - Beginning upon issuance of this permit and lasting through 12 months prior to permit expiration, the permittee shall conduct surveillance level WET testing at a minimum frequency of once every two years (1/2 Years). Testing shall be conducted in a different calendar quarter of each year. Acute tests shall be conducted on the mysid shrimp (*Mysidopsis bahia*) and chronic tests shall be conducted on the sea urchin (*Arbacia punctulata*).

   b. **Screening level testing** - Beginning 12 months prior to and lasting through permit expiration and every five years thereafter, the permittee shall conduct screening level WET testing at a minimum frequency of twice per year (2/Year). There shall be at least six (6) months between testing events and in calendar quarters not sampled during surveillance level testing. Acute tests shall be conducted on the mysid shrimp (*Mysidopsis bahia*) and chronic tests shall be conducted on the sea urchin (*Arbacia punctulata*).

The permittee is also required to analyze the effluent for the parameters specified in the analytical chemistry form in Attachment A of this permit each time a WET test is performed. WET test results must be submitted to the Department not later than the next Discharge Monitoring Report (DMR) required by the permit, provided, however, that the permittee may review the laboratory reports for up to 10 business days of their availability before submitting them. The permittee shall evaluate test results being submitted and identify to the Department possible exceedences of the critical acute and chronic water quality thresholds of 5.7% and 1.3%, respectively.

Toxicity tests must be conducted by an experienced laboratory approved by the Department. The laboratory must follow procedures as described in the following USEPA methods manuals.

U.S. Environmental Protection Agency. 2002. *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, 5th ed. EPA 821-R-02-012. U.S. Environmental Protection Agency, Office of Water, Washington, D.C., October 2002 (the acute method manual)

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Footnotes:

U.S. Environmental Protection Agency. 2002. *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms*, 3rd ed. EPA 821-R-02-014. U.S. Environmental Protection Agency, Office of Water, Washington, D.C., October 2002 (the marine chronic method manual)

6. **Analytical chemistry** – Refers to a suite of chemical tests that include ammonia nitrogen (as N), total aluminum, total arsenic, total cadmium, total chromium, total copper, total cyanide, total lead, total nickel, total silver, total zinc and total residual chlorine.

   a. **Surveillance level testing** – Beginning upon issuance of this permit and lasting through 12 months prior to permit expiration, the permittee shall conduct surveillance level analytical chemistry testing at a minimum frequency of once every other year (1/2Years). Testing shall be conducted in a different calendar quarter of each year.

   b. **Screening level testing** - Beginning 12 months prior to permit expiration and lasting through permit expiration and every five years thereafter, the permittee shall conduct screening level analytical chemistry testing at a minimum frequency of once per calendar quarter (1/Quarter).

7. **Priority pollutant testing** – Priority pollutants are those parameters listed by Department rule, Chapter 525, Section 4(IV).

   a. **Screening level testing** - Beginning 12 months prior to permit expiration and lasting through permit expiration and every five years thereafter, the permittee shall conduct screening level priority pollutant testing at a minimum frequency of once per year (1/Year). It is noted, Chapter 530 does not establish routine surveillance level priority pollutant testing.

Analytical chemistry and priority pollutant testing shall be conducted on samples collected at the same time as those collected for whole effluent toxicity tests, when applicable. Analytical chemistry and priority pollutant testing shall be conducted using methods that permit detection of a pollutant at existing levels in the effluent or that achieve minimum reporting levels of detection as specified by the Department. See Attachment A of this permit for a list of the Department's reporting limits.

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Footnotes:

Analytical chemistry and priority pollutant test results must be submitted to the Department not later than the next Discharge Monitoring Report (DMR) required by the permit, provided, however, that the permittee may review the laboratory reports for up to 10 business days of their availability before submitting them. The permittee shall evaluate test results being submitted and identify to the Department, possible exceedences of the acute, chronic or human health AWQC as established in Chapter 584. For the purposes of DMR reporting, enter a "1" for yes, testing done this monitoring period or "NODI-9" monitoring not required this period.

All mercury sampling required by this permit or required to determine compliance with interim limitations established pursuant to Department rule Chapter 519, shall be conducted in accordance with EPA's "clean sampling techniques" found in EPA Method 1669, Sampling Ambient Water For Trace Metals At EPA Water Quality Criteria Levels. All mercury analysis shall be conducted in accordance with EPA Method 1631, Determination of Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Fluorescence Spectrometry.

B. NARRATIVE EFFLUENT LIMITATIONS

1. The effluent shall not contain a visible oil sheen, foam or floating solids at any time which would impair the usages designated by the classification of the receiving waters.

2. The effluent shall not contain materials in concentrations or combinations which are hazardous or toxic to aquatic life, or which would impair the usages designated by the classification of the receiving waters.

3. The discharge shall not impart color, taste, turbidity, toxicity, radioactivity or other properties which cause those waters to be unsafe for the designated uses and characteristics ascribed to their classification.

4. Notwithstanding specific conditions of this permit, the effluent must not lower the quality of any classified body of water below such classification, or lower the existing quality of any body of water if the existing quality is higher than the classification.

SPECIAL CONDITIONS

C. DISINFECTION

If chlorination is used as the means of disinfection, an approved chlorine contact tank providing the proper detention time consistent with good engineering practice must be utilized followed by a dechlorination system if the imposed total residual chlorine (TRC) limit cannot be achieved by dissipation in the detention tank. The total residual chlorine in the effluent shall at no time cause any demonstrable harm to aquatic life in the receiving waters. The dose of chlorine applied shall provide a TRC concentration that will effectively reduce fecal coliform bacteria levels to or below those specified in Special Condition A, *Effluent Limitation and Monitoring Requirements*, of this permit.

D. TREATMENT PLANT OPERATOR

The waste water treatment facility must be operated under the direction of a person holding a minimum of a **Grade II** certificate [or Maine Professional Engineer (PE) certificate] pursuant to Title 32 M.R.S.A., Section 4171 et seq. All proposed contracts for facility operation by any person must be approved by the Department before the permittee may engage the services of the contract operator.

E. LIMITATIONS FOR INDUSTRIAL USERS

Pollutants introduced into the waste water collection and treatment system by a non-domestic source (user) shall not pass through or interfere with the operation of the treatment system.

F. NOTIFICATION REQUIREMENT

In accordance with Standard Condition D, the permittee shall notify the Department of the following:

1. Any introduction of pollutants into the waste water collection and treatment system from an indirect discharger in a primary industrial category discharging process waste water.

2. Any substantial change in the volume or character of pollutants being introduced into the waste water collection and treatment system.

3. For the purposes of this section, adequate notice shall include information on:

    a. The quality and quantity of waste water introduced to the waste water collection and treatment system; and

    b. Any anticipated impact of the change in the quality or quantity of the waste water to be discharged from the treatment system.

SPECIAL CONDITIONS

G. UNAUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with the terms and conditions of this permit and only from the outfall(s) cited in this permit. Discharges of waste water from any other point source are not authorized under this permit, but shall be reported in accordance with Standard Condition B(5) *(Bypass)* of this permit.

H. WET WEATHER FLOW MANAGEMENT PLAN

The treatment facility staff shall maintain a current Wet Weather Flow Management Plan to direct the staff on how to operate the facility effectively during periods of high flow. The Department acknowledges that the existing collection system may deliver flows in excess of the monthly average design capacity of the treatment plant during periods of high infiltration and rainfall. The plan shall include operating procedures for a range of intensities, address solids handling procedures (including septic waste and other high strength wastes if applicable) and provide written operating and maintenance procedures during the events.

The permittee shall review their plan annually and record any necessary changes to keep the plan up-to-date.

I. OPERATION & MAINTENANCE (O&M) PLAN

The permittee shall maintain a current written comprehensive Operation & Maintenance (O&M) Plan. The plan shall provide a systematic approach by which the permittee shall at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit.

By December 31 of each year, or within 90 days of any process changes or minor equipment upgrades, the permittee shall evaluate and modify the O&M Plan including site plan(s) and schematic(s) for the wastewater treatment facility to ensure that it is up-to-date. The O&M Plan shall be kept on-site at all times and made available to Department and other regulatory personnel upon request.

Within 90 days of completion of new and or substantial upgrades of the wastewater treatment facility, the permittee shall submit the updated O&M Plan to their Department inspector for review and comment.

SPECIAL CONDITIONS

J. EMERGENCY BYPASS STRUCTURE

The permittee shall monitor the facility's influent pump station emergency bypass structure. Any bypass(es) from this structure are not authorized by this permit and are considered a bypass that must be reported in accordance with Special Condition G, *Unauthorized Discharges*, of this permit. The permittee shall record the number of overflow events each month, the duration of each event and measure or calculate the quantity of untreated waste water discharged for each event. The data shall be reported to the Department's compliance inspector as an attachment to the monthly DMR submitted to the Department.

On or before December 31, 2007 *[PCS Code 34099]* the permittee shall submit to the Department for review, a scope or work and schedule to eliminate the discharge of untreated waste water from the influent pump station.

K. MONITORING AND REPORTING

Monitoring results obtained during the previous month shall be summarized for each month and reported on separate Discharge Monitoring Report (DMR) forms provided by the Department and **postmarked on or before the thirteenth (13th) day of the month or hand-delivered to a Department Regional Office such that the DMR's are received by the Department on or before the fifteenth (15th) day of the month** following the completed reporting period. A signed copy of the DMR and all other reports required herein shall be submitted to the Department assigned compliance inspector (unless otherwise specified) at the following addresses:

Maine Department of Environmental Protection
Southern Maine Regional Office
Bureau of Land & Water Quality
Division of Water Quality Management
312 Canco Road
Portland, Maine 04103

SPECIAL CONDITIONS

L. CHAPTER 530(2)(D)(4) CERTIFICATION

On or before December 31 of each year ***[PCS code 95799]*** the permittee is required to file a statement with the Department describing the following.

1. Changes in the number or types of non-domestic wastes contributed directly or indirectly to the wastewater treatment works that may increase the toxicity of the discharge;

2. Changes in the operation of the treatment works that may increase the toxicity of the discharge; and

3. Changes in industrial manufacturing processes contributing wastewater to the treatment works that may increase the toxicity of the discharge.

Further, the Department may require that annual WET, analytical chemistry and priority pollutant testing be re-instituted if it determines that there have been changes in the character of the discharge or if annual certifications described above are not submitted.

M. REOPENING OF PERMIT FOR MODIFICATIONS

Upon evaluation of the tests results or monitoring requirements specified in Special Conditions of this permitting action, new site specific information, or any other pertinent test results or information obtained during the term of this permit, the Department may, at any time, and with notice to the permittee, modify this permit to: (1) include effluent limits necessary to control specific pollutants or whole effluent toxicity where there is a reasonable potential that the effluent may cause water quality criteria to be exceeded; (2) require additional effluent or ambient water quality monitoring if results on file are inconclusive; or (3) change monitoring requirements or limitations based on new information.

N. SEVERABILITY

In the event that any provision, or part thereof, of this permit is declared to be unlawful by a reviewing court, the remainder of the permit shall remain in full force and effect, and shall be construed and enforced in all aspects as if such unlawful provision, or part thereof, had been omitted, unless otherwise ordered by the court.

ATTACHMENT A

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION
WHOLE EFFLUENT TOXICITY REPORT
MARINE WATERS

Facility Name _____ MEPDES Permit # _____

Facility Representative _____ Signature _____

By signing this form, I attest that to the best of my knowledge that the information provided is true, accurate, and complete.

Facility Telephone # _____ Date Collected _____ mm/dd/yy Date Tested _____ mm/dd/yy

Chlorinated? _____ Dechlorinated? _____

Results % effluent

	mysid shrimp	sea urchin
A-NOEL		
C-NOEL		

Effluent Limitations

A-NOEL	
C-NOEL	

Data summary

	mysid shrimp	sea urchin
	% survival	% fertilized
QC standard	>90	>80
lab control		
receiving water control		
conc. 1 (%)		
conc. 2 (%)		
conc. 3 (%)		
conc. 4 (%)		
conc. 5 (%)		
conc. 6 (%)		
stat test used		

place * next to values statistically different from controls

Salinity Adjustment

brine	
sea salt	
other	

Reference toxicant

	mysid shrimp A-NOEL	sea urchin C-NOEL
toxicant / date		
limits (mg/L)		
results (mg/L)		

Comments _____

Laboratory conducting test

Company Name _____ Company Rep. Name (Printed) _____

Mailing Address _____ Company Rep. Signature _____

City, State, ZIP _____ Company Telephone # _____

Report WET chemistry on DEP Form "WET and Analytical Chemistry Results - Marine Waters, December 2005."

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION
WET AND ANALYTICAL CHEMISTRY RESULTS
MARINE WATERS

Facility Name _____ MEPDES Permit # _____

Facility Representative _____ Signature _____

By signing this form, I attest to the best of my knowledge that the information provided is true, accurate and complete.

Date Collected _____ mm/dd/yy Date Analyzed _____ mm/dd/yy

Lab ID No. _____ Actual Daily Discharge Flow _____ MGD Monthly Average Discharge Flow _____ MGD

	Analyte	Report Units	Receiving Water Results	Effluent Results	Reporting Level	Method
Analytes Required for Analytical Chemistry	Ammonia nitrogen	µg/L	*		µg/L	
	Total aluminum	µg/L	*		µg/L	
	Total arsenic	µg/L	*		µg/L	
	Total cadmium	µg/L	*		µg/L	
	Total chromium	µg/L	*		µg/L	
	Total copper	µg/L	*		µg/L	
	Total cyanide	µg/L	*		µg/L	
	Total lead	µg/L	*		µg/L	
	Total nickel	µg/L	*		µg/L	
	Total silver	µg/L	*		µg/L	
	Total zinc	µg/L	*		µg/L	
	Total residual chlorine **	mg/L			mg/L	
Additional Analytes Required For WET Chemistry	Total organic carbon	mg/L			mg/L	
	Total solids	mg/L			mg/L	
	Total suspended solids	mg/L			mg/L	
	Salinity	ppt			ppt	
	pH **	S.U.	*		S.U.	

* The receiving water chemistry tests are optional. However, samples of the receiving water should be preserved and saved for the duration of the WET test. In the event of questions about the receiving water's possible effect on the WET results, chemistry tests should then be conducted.
** WET laboratories may conduct these tests on composite samples as part of their procedures.

Comments: _____

Laboratory conducting test

Company Name _____ Company Rep. Name (Printed) _____

Mailing Address _____ Company Rep. Signature _____

City, State, ZIP _____ Company Telephone # _____

Maine Department of Environmental Protection
WET and Chemical Specific Data Report Form
This form is for reporting laboratory data and facility information. Official compliance reviews will be done by DEP.

Facility Name _____ **MEPDES #** _____ **Pipe #** _____ Facility Representative Signature _____
To the best of my knowledge this information is true, accurate and complete.

Licensed Flow (MGD)	
Acute dilution factor	
Chronic dilution factor	
Human health dilution factor	
Criteria type: M(arine) or F(resh)	

Flow for Day (MGD)[1] _____ **Flow Avg. for Month (MGD)[2]** _____

Date Sample Collected _____ Date Sample Analyzed _____

Laboratory _____ Telephone _____
Address _____
Lab Contact _____ Lab ID # _____

ERROR WARNING ! Essential facility information is missing. Please check required entries in bold above.

	WHOLE EFFLUENT TOXICITY		Effluent Limits, %			Receiving Water or Ambient	Effluent Concentration (ug/L or as noted)		Possible Exceedence [7]		
			Acute	Chronic			WET Result, % Do not enter % sign	Reporting Limit Check	Acute	Chronic	
	Trout - Acute										
	Trout - Chronic										
	Water Flea - Acute										
	Water Flea - Chronic										
	WET CHEMISTRY										
	pH (S.U.)										
	Specific Conductance (umhos)										
	Total Organic Carbon (mg/L)										
	Total Solids (mg/L)										
	Total Suspended Solids (mg/L)										
	Alkalinity (mg/L)										
	Total Hardness (mg/L)										
	Total Magnesium (mg/L)										
	Total Calcium (mg/L)										
	ANALYTICAL CHEMISTRY [3]		Effluent Limits, ug/L						Possible Exceedence [7]		
		Reporting Limit	Acute[6]	Chronic[6]	Health[6]			Reporting Limit Check	Acute	Chronic	Health
	TOTAL RESIDUAL CHLORINE (mg/L)	0.05									
	AMMONIA	NA									
M	ALUMINUM	NA									
M	ARSENIC	5									
M	CADMIUM	1									
M	CHROMIUM	10									
M	COPPER	3									
M	CYANIDE	5									
M	LEAD	3									
M	NICKEL	5									
M	SILVER	1									
M	ZINC	5									

Maine Department of Environmental Protection
WET and Chemical Specific Data Report Form
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	PRIORITY POLLUTANTS [4]		Effluent Limits					Reporting Limit Check	Possible Exceedence [7]		
		Reporting Limit	Acute[6]	Chronic[6]	Health[6]				Acute	Chronic	Health
M	ANTIMONY	5									
M	BERYLLIUM	2									
M	MERCURY[4]	0.2									
M	SELENIUM	5									
M	THALLIUM	4									
A	2,4,6-TRICHLOROPHENOL	3									
A	2,4-DICHLOROPHENOL	5									
A	2,4-DIMETHYLPHENOL	5									
A	2,4-DINITROPHENOL	45									
A	2-CHLOROPHENOL	5									
A	2-NITROPHENOL	5									
A	4,6 DINITRO-O-CRESOL (2-Methyl-4,6-dinitrophenol)	25									
A	4-NITROPHENOL	20									
A	P-CHLORO-M-CRESOL (3-methyl-4-chlorophenol)+B80	5									
A	PENTACHLOROPHENOL	20									
A	PHENOL	5									
BN	1,2,4-TRICHLOROBENZENE	5									
BN	1,2-(O)DICHLOROBENZENE	5									
BN	1,2-DIPHENYLHYDRAZINE	10									
BN	1,3-(M)DICHLOROBENZENE	5									
BN	1,4-(P)DICHLOROBENZENE	5									
BN	2,4-DINITROTOLUENE	6									
BN	2,6-DINITROTOLUENE	5									
BN	2-CHLORONAPHTHALENE	5									
BN	3,3'-DICHLOROBENZIDINE	16.5									
BN	3,4-BENZO(B)FLUORANTHENE	5									
BN	4-BROMOPHENYLPHENYL ETHER	2									
BN	4-CHLOROPHENYL PHENYL ETHER	5									
BN	ACENAPHTHENE	5									
BN	ACENAPHTHYLENE	5									
BN	ANTHRACENE	5									
BN	BENZIDINE	45									
BN	BENZO(A)ANTHRACENE	8									
BN	BENZO(A)PYRENE	3									
BN	BENZO(G,H,I)PERYLENE	5									
BN	BENZO(K)FLUORANTHENE	3									
BN	BIS(2-CHLOROETHOXY)METHANE	5									
BN	BIS(2-CHLOROETHYL)ETHER	6									
BN	BIS(2-CHLOROISOPROPYL)ETHER	6									
BN	BIS(2-ETHYLHEXYL)PHTHALATE	3									
BN	BUTYLBENZYL PHTHALATE	5									
BN	CHRYSENE	3									
BN	DI-N-BUTYL PHTHALATE	5									
BN	DI-N-OCTYL PHTHALATE	5									
BN	DIBENZO(A,H)ANTHRACENE	5									
BN	DIETHYL PHTHALATE	5									
BN	DIMETHYL PHTHALATE	5									

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BN	FLUORANTHENE	5									
BN	FLUORENE	5									
BN	HEXACHLOROBENZENE	2									
BN	HEXACHLOROBUTADIENE	1									
BN	HEXACHLOROCYCLOPENTADIENE	10									
BN	HEXACHLOROETHANE	2									
BN	INDENO(1,2,3-CD)PYRENE	5									
BN	ISOPHORONE	5									
BN	N-NITROSODI-N-PROPYLAMINE	10									
BN	N-NITROSODIMETHYLAMINE	1									
BN	N-NITROSODIPHENYLAMINE	5									
BN	NAPHTHALENE	5									
BN	NITROBENZENE	5									
BN	PHENANTHRENE	5									
BN	PYRENE	5									
P	4,4'-DDD	0.05									
P	4,4'-DDE	0.05									
P	4,4'-DDT	0.05									
P	A-BHC	0.2									
P	A-ENDOSULFAN	0.05									
P	ALDRIN	0.15									
P	B-BHC	0.05									
P	B-ENDOSULFAN	0.05									
P	CHLORDANE	0.1									
P	D-BHC	0.05									
P	DIELDRIN	0.05									
P	ENDOSULFAN SULFATE	0.1									
P	ENDRIN	0.05									
P	ENDRIN ALDEHYDE	0.05									
P	G-BHC	0.15									
P	HEPTACHLOR	0.15									
P	HEPTACHLOR EPOXIDE	0.1									
P	PCB-1016	0.3									
P	PCB-1221	0.3									
P	PCB-1232	0.3									
P	PCB-1242	0.3									
P	PCB-1248	0.3									
P	PCB-1254	0.3									
P	PCB-1260	0.2									
P	TOXAPHENE	1									
V	1,1,1-TRICHLOROETHANE	5									
V	1,1,2,2-TETRACHLOROETHANE	7									
V	1,1,2-TRICHLOROETHANE	5									
V	1,1-DICHLOROETHANE	5									
V	1,1-DICHLOROETHYLENE (1,1-dichloroethene)	3									
V	1,2-DICHLOROETHANE	3									
V	1,2-DICHLOROPROPANE	6									
V	1,2-TRANS-DICHLOROETHYLENE (1,2-trans-dichloroethene)	5									
V	1,3-DICHLOROPROPYLENE (1,3-dichloropropene)	5									
V	2-CHLOROETHYLVINYL ETHER	20									

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V	ACROLEIN	NA									
V	ACRYLONITRILE	NA									
V	BENZENE	5									
V	BROMOFORM	5									
V	CARBON TETRACHLORIDE	5									
V	CHLOROBENZENE	6									
V	CHLORODIBROMOMETHANE	3									
V	CHLOROETHANE	5									
V	CHLOROFORM	5									
V	DICHLOROBROMOMETHANE	3									
V	ETHYLBENZENE	10									
V	METHYL BROMIDE (Bromomethane)	5									
V	METHYL CHLORIDE (Chloromethane)	5									
V	METHYLENE CHLORIDE	5									
V	TETRACHLOROETHYLENE (Perchloroethylene or Tetrachloroethene)	5									
V	TOLUENE	5									
V	TRICHLOROETHYLENE (Trichloroethene)	3									
V	VINYL CHLORIDE	5									

Notes:

(1) Flow average for day pertains to WET/PP composite sample day.

(2) Flow average for month is for month in which WET/PP sample was taken.

(3) Analytical chemistry parameters must be done as part of the WET test chemistry.

(4) Priority Pollutants should be reported in micrograms per liter (ug/L).

(5) Mercury is often reported in nanograms per liter (ng/L) by the contract laboratory, so be sure to convert to micrograms per liter on this spreadsheet.

(6) Effluent Limits are calculated based on dilution factor, background allocation (10%) and water quality reserves (15% - to allow for new or changed discharges or non-point sources).

(7) Possible Exceedence determinations are done for a single sample only on a mass basis using the actual pounds discharged. This analysis does not consider watershed wide allocations for fresh water discharges.

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
AND
MAINE WASTE DISCHARGE LICENSE

FACT SHEET

Date: **May 22, 2006**

PERMIT NUMBER: **ME0102121**
LICENSE NUMBER: **W006751-5L-D-R**

NAME AND ADDRESS OF APPLICANT:

PORTLAND WATER DISTRICT
225 Douglas Street, P.O. Box 3553
Portland, Maine 04104

COUNTY: **Cumberland County**

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

Spurwink Avenue
Cape Elizabeth, Maine

RECEIVING WATER/CLASSIFICATION: **Peabbles Cove/Class SB**

COGIZANT OFFICIAL AND TELEPHONE NUMBER: **Robert Waterman**
(207) 761-8320
E-mail: bwaterman@pwd.org

1. APPLICATION SUMMARY

a. Application: The PWD has submitted a timely and complete application to the Department to renew combination Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0102121/ Maine Waste Discharge License (WDL) #W006751-5L-C-R, (permit hereinafter) which was issued on December 17, 2001, and is due to expire on December 17, 2006. The permit approved the monthly average discharge of up to 0.499 million gallons per day (MGD) of secondary treated waste water from a municipal waste water treatment facility to the Peabbles Cove, Class SB, in Cape Elizabeth, Maine. See Attachment A of this Fact Sheet for a location map.

b. Source Description: The waste water treatment facility treats domestic and commercial sanitary waste water from approximately 3,100 customers in the Town of Cape Elizabeth. There are no significant industrial contributors or any industries with pretreatment requirements connected to the collection system. The collection system is approximately

1. APPLICATION SUMMARY (cont'd)

7.67 miles long, has 13 pump stations, is 100% separated and has no combined sewer overflow points. One of the pump stations (Spurwink Road) has an on-site generator to provide back-up power in the event of a power failure and the remaining 12 stations have emergency generator receptacles and manual transfer switches such that back-up power via a portable generator can be supplied to the stations in the event of a power failure. The Spurwink Road pump station has been configured such that during wet weather events when the piping from the pump station to the waste water treatment facility is at full capacity, excess untreated waste water bypasses the pump station as is conveyed to the outfall pipe for the treatment facility where it co-mingles with secondary treated waste water and discharged to Peabbles Cove. This facility does not accept septage.

c. Waste Water Treatment: The waste water treatment facility provides a secondary level of treatment via a bar screen, grit removal, two oxidation ditches (each with a volume of 200,000 gallons) with mechanical aeration, two secondary clarifiers (each 50 feet in diameter and 11 feet deep), a disinfection system utilizing sodium hypochlorite and a dechlorination system utilizing sodium bisulfite. Disinfection is accomplished by injecting sodium hypochlorite into the effluent forcemain and the 2.5 mile long piping is utilized for chlorine contact purposes. The outfall pipe is a ductile iron pipe measuring 18 inches in diameter fitted with a 90° elbow that necks the pipe down to 12 inches in diameter. The pipe extends out into the receiving water such that there is approximately 4 feet of water over the top of the pipe at mean low water and 9 feet of water over the top of the pipe at mean high tide. See Attachment B of this Fact Sheet for a schematic of the waste water treatment facility.

2. PERMIT SUMMARY

a. Terms and conditions: This permitting action is carrying forward all the terms and conditions of the 12/17/01 permit. In addition, this permit is;

1. Establishing a requirement to maintain a current Operations & Maintenance (O&M) plan.

2. Establishing a requirement to maintain a current Wet Weather Flow Management plan.

3. Revising the Whole Effluent Toxicity (WET) and chemical specific testing based on revised Department Rules Chapter 530 *Surface Water Toxics Control Program,* and Chapter 584, *Surface Water Quality Criteria for Toxic Pollutants*, promulgated October 2005.

4. Establishing a requirement to monitor the discharge from the plant's influent pump station as well as establishing a requirement to submit a scope of work and schedule to eliminate said bypass.

2. PERMIT SUMMARY

b. History: The most recent/relevant regulatory actions include the following:

September 3, 1986 – The Department issued WDL #W006751-46-A-N for a five-year term. This was the original WDL for the newly constructed waste water treatment facility.

September 19, 1995 – The U.S. Environmental Protection Agency (EPA) issued National Pollutant Discharge Elimination System (NPDES) permit #ME0102121 for five-year term.

May 28, 1996 – The Department issued WDL renewal #W006751-59-B-R for a five-year term.

May 23, 2000 – The Department administratively modified WDL #W006751-59-B-R by establishing interim average and maximum concentration limits for mercury.

January 12, 2001 – The State of Maine received authorization from the EPA to administer the NPDES permitting program in Maine. From that date forward, the program has been referred to as the MEPDES permitting program. The NPDES permit issued by the EPA on 9/19/95 was replaced by the 12/17/01 MEPDES permit upon issuance. Once replaced, all terms and conditions of the NPDES permit became null and void.

December 17, 2001 – The Department issued combination MEPDES permit #ME0101212/WDL W006751-5L-C-R for a five-year term.

May 10, 2006 – The PWD submitted a timely and complete application to the Department to renew the MEPDES permit.

3. CONDITIONS OF PERMITS

Maine law, 38 M.R.S.A. Section 414-A, requires that the effluent limitations prescribed for discharges, including, but not limited to, effluent toxicity, require application of best practicable treatment (BPT), be consistent with the U.S. Clean Water Act, and ensure that the receiving waters attain the State water quality standards as described in Maine's Surface Water Classification System. In addition, 38 M.R.S.A., Section 420 and Department rule 06-096 CMR Chapter 530, *Surface Water Toxics Control Program,* require the regulation of toxic substances not to exceed levels set forth in Department rule 06-096 CMR Chapter 584, *Surface Water Quality Criteria for Toxic Pollutants*, and that ensure safe levels for the discharge of toxic pollutants such that existing and designated uses of surface waters are maintained and protected.

4. RECEIVING WATER QUALITY STANDARDS

Maine law, 38 M.R.S.A., Section 469 classifies Peabbles Cove at the point of discharge as a Class SB waterway. Maine law, 38 M.R.S.A., Section 465-B(2) describes the classification standards for Class SB waterways.

5. RECEIVING WATER QUALITY CONDITIONS

A document entitled, 2004 Integrated Water Quality Monitoring And Assessment Report, prepared by the Department pursuant to Section 305(b) of the Federal Water Pollution Control Act indicates that Peabbles Cove is attaining the standards of its assigned classification.

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

a. Flow: The previous permitting action established a monthly average flow limit of 0.499 MGD. The limit is being carried forward in this permitting action and is considered representative of the monthly average design capacity of the treatment facility. A review of the Discharge Monitoring Report (DMR) data for the period January 2003 to December 2005 indicates the monthly average flow has ranged from 0.187 MGD to 0.648 MGD with an arithmetic mean of 0.353 MGD. As for the daily maximum, the flow has ranged from 0.265 MGD to 1.64 MGD with an arithmetic mean of 0.634 MGD for said period.

b. Dilution Factors: Department Regulation Chapter 530 *Surface Water Toxics Control Program*, §4(a)(2) states:

(1) *For estuaries where tidal flow is dominant and marine discharges, dilution factors are calculated as follows. These methods may be supplemented with additional information such as current studies or dye studies.*

(a) For discharges to the ocean, dilution must be calculated as near-field or initial dilution, or that dilution available as the effluent plume rises from the point of discharge to its trapping level, at mean low water level and slack tide for the acute exposure analysis, and at mean tide for the chronic exposure analysis using appropriate models determined by the Department such as MERGE, CORMIX or another predictive model.

(b) For discharges to estuaries, dilution must be calculated using a method such as MERGE, CORMIX or another predictive model determined by the Department to be appropriate for the site conditions.

(c) In the case of discharges to estuaries where tidal flow is dominant and marine waters, the human health criteria must be analyzed using a dilution equal to three times the chronic dilution factor.

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Using plan and profile information previously submitted to the Department by the permittee and the CORMIX model, the Department has determined the dilution factors for the discharge of 0.499 MGD from the waste water treatment facility are as follows:

Acute = 17.4:1 Chronic = 74.8:1 Harmonic mean = 224:1[(1)]

Footnote:

(1) Pursuant to Department rule Chapter 530, "*Surface Water Toxics Control Program*", §4(a)(2)(c), the harmonic mean dilution factor is approximated by multiplying the chronic dilution factor by a factor of three (3).

c. Biochemical Oxygen Demand & Total Suspended Solids - The previous permitting action established monthly and weekly average biochemical oxygen demand (BOD5) and total suspended solids (TSS) concentration limits of 30 mg/L and 45 mg/L respectively, based on secondary treatment requirements pursuant to Department rule Chapter 525(3)(III). The maximum daily BOD5 and TSS concentration limits of 50 mg/L are based on a Department best professional judgment of best practicable treatment (BPT). All BOD5 and TSS mass limitations are calculated based on the monthly average permit flow limit of 0.499 MGD and the corresponding monthly average, weekly average and daily maximum concentration limits.

BOD and TSS mass limits were derived as follows:

Monthly average = (30 mg/L) (0.499 MGD) (8.34) = 125 lbs/day
Weekly average = (45 mg/L) (0.499 MGD) (8.34) = 188 lbs/day
Daily maximum = (50 mg/L) (0.499 MGD) (8.34) = 208 lbs/day

For BOD, a review of the monthly DMR data for the period January 2003 to December 2005 indicates the monthly average mass discharged has ranged from 6 lbs/day to 69 lbs/day with an arithmetic mean of 24 lbs/day. As for concentration, the DMR data indicates the monthly average concentration of BOD discharged has ranged from 3 mg/L to 11 mg/L with an arithmetic mean of 7.0 mg/L. With the exception of October 2003, the DMR data indicates BOD limits have not been exceeded in said timeframe.

For TSS, a review of the monthly DMR data for the period January 2003 to December 2005 indicates the monthly average mass discharged has ranged from 3 lbs/day to 29 lbs/day with an arithmetic mean of 11 lbs/day. As for concentration, the DMR data indicates the monthly average concentration of TSS discharged has ranged from 2 mg/L to 7.5 mg/L with an arithmetic mean of 3.6 mg/L.

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

This permitting action is carrying forward a requirement of 85% removal for BOD and TSS pursuant to Department rule Chapter 525(3)(III)(a&b)(3) except in the circumstances where the influent concentration is less than 200 mg/L.

The monitoring frequency of 1/Week in the previous permitting action is being carried forward in the permitting action and is based on long standing Department guidance for facilities permitted to discharge between 0.100 MGD and 0.500 MGD.

d. Settleable Solids - The previous permitting action established a technology based daily maximum limit of 0.3 ml/L and a monitoring frequency of 1/Day that are being carried forward in the summer months (June 1 – September 30) in this permitting action. In addition, this permit establishes a 5/Week monitoring frequency in the non-summer months (October 1 – May 31), the less critical time of the year for water quality impacts. The limitation was based on a Department best professional judgment of BPT. The monitoring frequency in the previous permitting action was based on Department policy for facilities with a monthly average flow limitation greater than 0.1 MGD but less than 0.5 MGD. A review of the monthly DMR data for the period January 2003 to December 2005 indicates the daily maximum concentration has been reported as 0.0 ml/L for all the months in said time period with the exception of a 1.0 ml/L data point reported in November 2003.

e. Fecal coliform bacteria – The previous permitting action established seasonal (May 15 – September 30) monthly average and daily maximum limits of 15 colonies/100 ml and 50 colonies/100 ml respectively, and are being carried forward in this permitting action. The limits are based on the Water Classification Program criteria for the receiving waters (including standards in the National Shellfish Sanitation Program) and requires application of BPT.

A review of the monthly DMR data for the period May 2003 to September 2005 indicates the seasonal monthly average (geometric mean) bacteria levels have ranged from 2.3 colonies/100 ml to 17 colonies/100 ml with an arithmetic mean of 5.1 colonies/100 ml. As for the daily maximum, the DMR data indicates the bacteria levels range from 4 colonies/100 ml to 1200 colonies/100 ml. The DMR data indicates the permittee has been in compliance with the monthly average limit 80% of the months evaluated in said timeframe and in compliance with the daily maximum limit 91% of the months evaluated in said timeframe.

The monitoring frequency of 1/Week in the previous permitting action is being carried forward in the permitting action and is based on long standing Department guidance for facilities permitted to discharge between 0.100 MGD and 0.500 MGD.

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

f. Total Residual Chlorine - Limits on total residual chlorine (TRC) are specified to ensure that ambient water quality standards are maintained and that BPT technology is being applied to the discharge. The previous permitting action established a daily maximum water quality based limit of 0.23 mg/L and a monthly average technology based limit of 0.1 mg/L for the discharge. Water quality based thresholds for TRC can be calculated as follows:

Parameter	Acute Criteria	Chronic Criteria	Acute Dilution	Chronic Dilution	Acute Limit	Chronic Limit
Chlorine	13 ug/L	7.5 ug/L	17.4:1	74.8:1	0.23 mg/L	0.56 mg/L

Example calculation: Acute – 0.013 mg/L (17.4) = 0.23 mg/L

To meet the chronic and acute water quality based thresholds calculated above, the permittee must dechlorinate the effluent prior to discharge. In April of 1999, the Department established new daily maximum and monthly average BPT limitations of 0.3 mg/L and 0.1 mg/L respectively for facilities that need to dechlorinate their effluent unless calculated water quality based thresholds are lower than the BPT limits. In the case of the PWD's Cape Elizabeth facility, the calculated acute water quality based threshold is lower than the BPT limit of 0.3 mg/L, thus the water quality based limit of 0.23 mg/L is imposed. As for the monthly average limit, the calculated chronic water quality based threshold of 0.56 mg/L is higher than the BPT limit 0.1 mg/L, thus the BPT limit of 0.1 mg/L is imposed in the permit.

A review of the DMR data for the period May 2003 to September 2005 indicates the daily maximum concentration levels of TRC ranged from 0.05 mg/L to 0.16 mg/L with an arithmetic mean of 0.08 mg/L. As for monthly average concentrations, the DMR data indicates the TRC ranged from 0.0 mg/L to 0.06 mg/L with an arithmetic mean of 0.03 mg/L. The DMR data indicates the permittee has been in compliance with the both the daily maximum and monthly average limits 100% of the months in said timeframe.

The monitoring frequency of 1/Day in the previous permitting action is being carried forward in the permitting action and is based on a long standing Department guidance for facilities permitted to discharge between 0.100 MGD and 0.500 MGD.

g. pH – The previous permitting action established a pH range limitation of 6.0 –9.0 standard units pursuant to a Department regulation found at Chapter 525(3)(III)(c) and are considered BPT. The limitation and 1/Day monitoring requirement are being carried forward in this permitting action. In addition, this permit establishes a 5/Week monitoring frequency in the non-summer months (October 1 – May 31), the less critical time of the year for water quality impacts. The DMR data indicates the permittee has been in compliance with the pH range limitation 100% of the months in said timeframe.

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

h. Mercury: Pursuant to Maine law, 38 M.R.S.A. §420 and Department rule, 06-096 CMR Chapter 519, *Interim Effluent Limitations and Controls for the Discharge of Mercury*, the Department issued a *Notice of Interim Limits for the Discharge of Mercury* to the permittee thereby administratively modifying WDL # W006751-59-B-R by establishing interim monthly average and daily maximum effluent concentration limits of 6.5 parts per trillion (ppt) and 9.8 ppt, respectively, and a minimum monitoring frequency requirement of four tests per year for mercury. The interim mercury limits were scheduled to expire on October 1, 2001. However, effective June 15, 2001, the Maine Legislature enacted Maine law, 38 M.R.S.A. §413, sub-§11 specifying that interim mercury limits and monitoring requirements remain in effect. It is noted the mercury effluent limitations have not been incorporated into Special Condition A, *Effluent Limitations And Monitoring Requirements*, of this permit as the limits and monitoring frequencies are regulated separately through Maine law, 38 M.R.S.A. §413 and Department rule Chapter 519. The interim mercury limits remain in effect and enforceable and modifications to the limits and/or monitoring frequencies will be formalized outside of this permitting document pursuant to Maine law, 38 M.R.S.A. §413 and Department rule Chapter 519.

i. Whole Effluent Toxicity (WET) & Chemical-Specific Testing: Maine law, 38 M.R.S.A., Sections 414-A and 420, prohibit the discharge of effluents containing substances in amounts that would cause the surface waters of the State to contain toxic substances above levels set forth in Federal Water Quality Criteria as established by the USEPA. Department Rules, 06-096 CMR Chapter 530, *Surface Water Toxics Control Program*, and Chapter 584, *Surface Water Quality Criteria for Toxic Pollutants* set forth ambient water quality criteria (AWQC) for toxic pollutants and procedures necessary to control levels of toxic pollutants in surface waters.

WET, priority pollutant and analytical chemistry testing, as required by Chapter 530, is included in this permit in order to characterize the effluent. This permit also provides for reconsideration of effluent limits and monitoring schedules after evaluation of toxicity testing results. The monitoring schedule includes consideration of results currently on file, the nature of the wastewater, existing treatment and receiving water characteristics.

WET monitoring is required to assess and protect against impacts upon water quality and designated uses caused by the aggregate effect of the discharge on specific aquatic organisms. Acute and chronic WET tests are performed on invertebrate and vertebrate species. Priority pollutant and analytical chemistry testing is required to assess the levels of individual toxic pollutants in the discharge, comparing each pollutant to acute, chronic, and human health AWQC as established in Chapter 584.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (cont'd)

Chapter 530 establishes four categories of testing requirements based predominately on the chronic dilution factor. The categories are as follows:

1) Level I – chronic dilution factor of <20:1.
2) Level II – chronic dilution factor of ≥20:1 but <100:1.
3) Level III – chronic dilution factor ≥100:1 but <500:1 or >500:1 and Q ≥1.0 MGD
4) Level IV – chronic dilution >500:1 and Q ≤1.0 MGD

Department rule Chapter 530 (1)(D) specifies the criteria to be used in determining the minimum monitoring frequency requirements for WET, priority pollutant and analytical chemistry testing. Based on the Chapter 530 criteria, the PWD facility falls into the Level II frequency category as the facility has a chronic dilution factor ≥20:1 but <100:1. Chapter 530(1)(D)(1) specifies that surveillance and screening level testing requirements are as follows:

Surveillance level testing – Beginning upon issuance of the permit and lasting through 12 months prior to permit expiration.

Level	WET Testing	Priority pollutant testing	Analytical chemistry
II	1 per year	None required	2 per year

Screening level testing – Beginning 12 months prior to permit expiration and lasting through permit expiration and every five years thereafter.

Level	WET Testing	Priority pollutant testing	Analytical chemistry
II	2 per year	1 per year	4 per year

A review of the data on file with the Department for the PWD facility indicates that to date, the PWD has fulfilled the WET and chemical-specific testing requirements of the former Chapter 530.5. See Attachment C of this Fact Sheet for a summary of the WET test results and Attachment D of this Fact Sheet for a summary of the chemical-specific test dates.

Department rule Chapter 530(D)(3)(c) states "*...dischargers in Levels II may be reduce surveillance testing for individual WET species or chemicals to once every other year (1/2 Years) provided testing in the preceding 60 months does not indicate any reasonable potential for exceedences.*"

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (cont'd)

Chapter 530 §(3)(E) states "*For effluent monitoring data and the variability of the pollutant in the effluent, the Department shall apply the statistical approach in Section 3.3.2 and Table 3-2 of USEPA's "Technical Support Document for Water Quality-Based Toxics Control" (USEPA Publication 505/2-90-001, March, 1991, EPA, Office of Water, Washington, D.C.) to data to determine whether water-quality based effluent limits must be included in a waste discharge license. Where it is determined through this approach that a discharge contains pollutants or WET at levels that have a reasonable potential to cause or contribute to an exceedence of water quality criteria, appropriate water quality-based limits must be established in any licensing action.*"

Chapter 530 §3 states, "*In determining if effluent limits are required, the Department shall consider all information on file and effluent testing conducted during the preceding 60 months. However, testing done in the performance of a Toxicity Reduction Evaluation (TRE) approved by the Department may be excluded from such evaluations.*"

Chapter 530 §4(C), states "*The background concentration of specific chemicals must be included in all calculations using the following procedures. The Department may publish and periodically update a list of default background concentrations for specific pollutants on a regional, watershed or statewide basis. In doing so, the Department shall use data collected from reference sites that are measured at points not significantly affected by point and non-point discharges and best calculated to accurately represent ambient water quality conditions." The Department shall use the same general methods as those in section 4(D) to determine background concentrations. For pollutants not listed by the Department, an assumed concentration of 10% of the applicable water quality criteria must be used in calculations.* The Department has no information on the background levels of metals in the water column in and around Peabbles Cove. Therefore, a default background concentration of 10% of the applicable water quality criteria is being used in the calculations of this permitting action.

Chapter 530 §4(E), states "*In allocating assimilative capacity for toxic pollutants, the Department shall hold a portion of the total capacity in an unallocated reserve to allow for new or changed discharges and non-point source contributions. The unallocated reserve must be reviewed and restored as necessary at intervals of not more than five years. The water quality reserve must be not less than 15% of the total assimilative quantity*". Therefore, the Department is reserving 15% of the applicable water quality criteria is used in the calculations of this permitting action.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (cont'd)

WET Evaluation

On April 7, 2006, the Department conducted a statistical evaluation of the most recent 60 months of WET tests results on file at the Department. The statistical evaluation indicates the discharge from the PWD waste water treatment facility does not exceed or have a reasonable potential to exceed the critical acute and chronic water quality thresholds of 5.7% and 1.3 % respectively (mathematical inverse of the acute and chronic dilution factors of 17.4:1 and 74.8:1 respectively), for any of the WET species specified for testing in Chapter 530. Therefore, no numeric limitations for any WET species are being established in this permitting action.

As for testing frequencies, Chapter 530 §(2)(D)(3)(c) states in part that for Level II facilities "*...may reduce WET and chemical testing to once every other year provided that testing in the preceding 60 months does not indicate any reasonable potential for exceedences.*" Therefore, based on the results of the 4/7/06 statistical evaluation, the permittee qualifies for the testing reduction. This permitting action is establishing surveillance level testing as follows:

Beginning upon issuance of this permit and lasting through 12 months prior to permit expiration.

Level	WET Testing
II	1/2 Years

Surveillance level tests are to be conducted in a different calendar quarter of each year.

Chapter 530 §(2)(D) states:

(4) All dischargers having waived or reduced testing must file statements with the Department on or before December 31 of each year describing the following.

(a) Changes in the number or types of non-domestic wastes contributed directly or indirectly to the wastewater treatment works that may increase the toxicity of the discharge;
(b) Changes in the operation of the treatment works that may increase the toxicity of the discharge; and
(c) Changes in industrial manufacturing processes contributing wastewater to the treatment works that may increase the toxicity of the discharge.

Special Condition K, *Chapter 530 §(2)(D)(4) Certification,* of this permitting action requires the permittee to file an annual certification with the Department.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (cont'd)

Beginning 12 months prior to the expiration date of the permit and lasting through permit expiration and every five years thereafter, the permittee shall conduct screening level WET testing as follows:

Level	WET Testing
II	2/Year

There shall be at least six months between testing events.

Chemical specific evaluation

The 4/7/06 statistical evaluation indicates the discharge does not exceed or have a reasonable potential to exceed any acute, chronic or human health AWQC for any of the chemicals tested to date. Therefore, no numeric limitations for any chemicals are being established in this permitting action.

As for testing frequencies Chapter 530 §(2)(D)(3)(c) states in part that for Level II facilities "*...may reduce WET and chemical testing to once every other year provided that testing in the preceding 60 months does not indicate any reasonable potential for exceedences.*" It is noted Chapter 530 §(2)(D)(1) does not require priority pollutant testing during the surveillance level testing years. Based on the results of the 2/1/06 statistical evaluation, the permittee qualifies for the reduced testing. Therefore, surveillance level analytical chemistry is being established as follows:

Beginning upon issuance of this permit and lasting through 12 months prior to permit expiration.

Level	Analytical Chemistry
II	1/2 Years

For screening level testing, Chapter 530 §(2)(D)(1) requires that beginning 12 months prior to the expiration date of the permit, chemical testing shall be conducted at a frequency of 1/Year for priority pollutant testing and 1/Quarter for analytical chemistry. Therefore, screening level chemical is being established as follows:

Screening level testing – Beginning 12 months prior to permit expiration and lasting through permit expiration and every five years thereafter.

Level	Priority pollutant testing	Analytical chemistry
II	1 per year	4 per year

It is noted however that if future WET or chemical testing indicates the discharge exceeds critical water quality thresholds or AWQC, this permit will be reopened pursuant to Special Condition L, *Reopening of Permit For Modification*, of this permit to establish applicable limitations and monitoring requirements.

7. DISCHARGE IMPACT ON RECEIVING WATER QUALITY

As permitted, the Department has determined the existing water uses will be maintained and protected and the discharge will not cause or contribute to the failure of the waterbody to meet standards for Class SB classification.

8. PUBLIC COMMENTS

Public notice of this application was made in the Portland Press Herald newspaper on or about May 15, 2006. The Department receives public comments on an application until the date a final agency action is taken on that application. Those persons receiving copies of draft permits shall have at least 30 days in which to submit comments on the draft or to request a public hearing, pursuant to Chapter 522 of the Department's rules.

9. DEPARTMENT CONTACTS

Additional information concerning this permitting action may be obtained from and written comments should be sent to:

Gregg Wood
Division of Water Quality Management
Bureau of Land and Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017 Telephone: (207) 287-3901
E-mail: gregg.wood@maine.gov

10. RESPONSE TO COMMENTS

During the period May 22, 2006 through the date of permit issuance, the Department solicited comments from the permittee, state and federal agencies and other interested parties on the draft permit for the discharge from PWDs Cape Elizabeth facility. The Department received two comments from the permittee and response to those comments is as follows:

Comment #1: The permittee states "The District would like the Department to consider changing the Monthly Average Flow limitation from 0.499 MGD to 0.499 MGD Report Only. Provided this change is acceptable, the Monthly Average and Weekly Average loadings for BOD and TSS should be changed from 125 #/day and 188 #/day to Report Only.

Response #1 – It is the Department's understanding that the additional flow to the Westbrook-Gorham facility is within the present design capacity of the facility which was the basis for the 0.499 MGD monthly average flow limitation established in the previous permitting action. Therefore, the flow limitation of 0.499 is appropriate for this permit.

12. RESPONSE TO COMMENTS (cont'd)

The permittee's request to change the monthly average and weekly average numeric mass limitations for BOD and TSS to a "Report Only" requirement is not permissible under state and federal law. Department rule Chapter 525 Section 3,§III(a)(1 & 2) establishes best practicable treatment (BPT) 30-day average and 7-day average concentration limits of 30 mg/L and 45 mg/L respectively, for BOD and TSS. Department rule Chapter 523, Section 6(f) states;

(f) Mass limitations.

(1) All pollutants limited in permits shall have limitations, standards or prohibitions expressed in terms of mass [emphasis added] except:

(i) For pH, temperature, radiation, or other pollutants which cannot appropriately be expressed by mass;
(ii) When applicable standards and limitations are expressed in terms of other units of measurement; or
(iii)If in establishing permit limitations on a case-by-case basis under Chapter 524 Section 2(II), limitations expressed in terms of mass are infeasible because the mass of the pollutant discharged cannot be related to a measure of operation (for example, discharges of TSS from certain mining operations), and permit conditions ensure that dilution will not be used as a substitute for treatment.

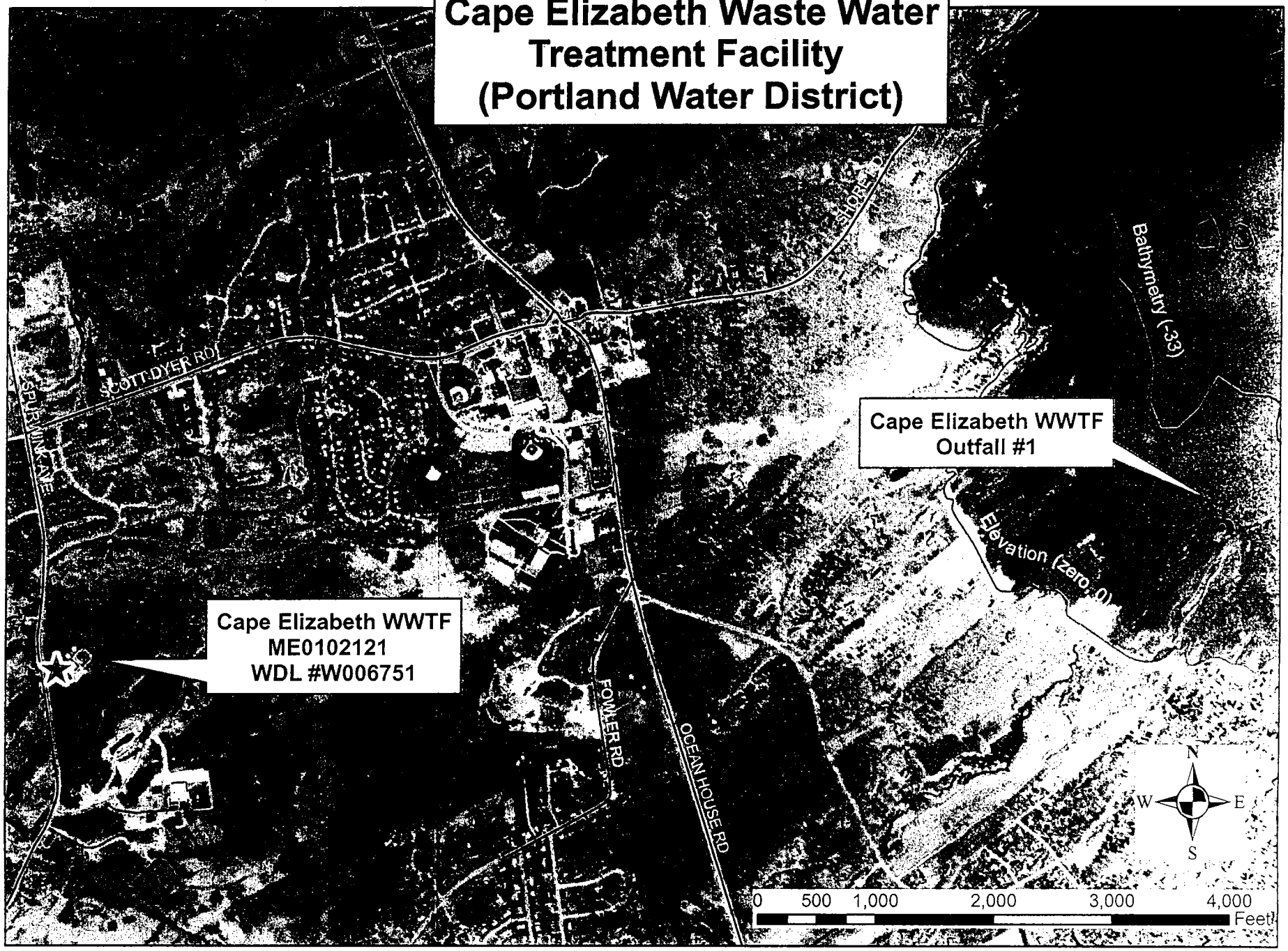
(2) Pollutants limited in terms of mass additionally may be limited terms of other units of measurement, and the permit shall require the permittee to comply with both limitations [emphasis added].

Therefore, the numeric monthly and weekly average mass and concentration limits for BOD and TSS remain in the final permit.

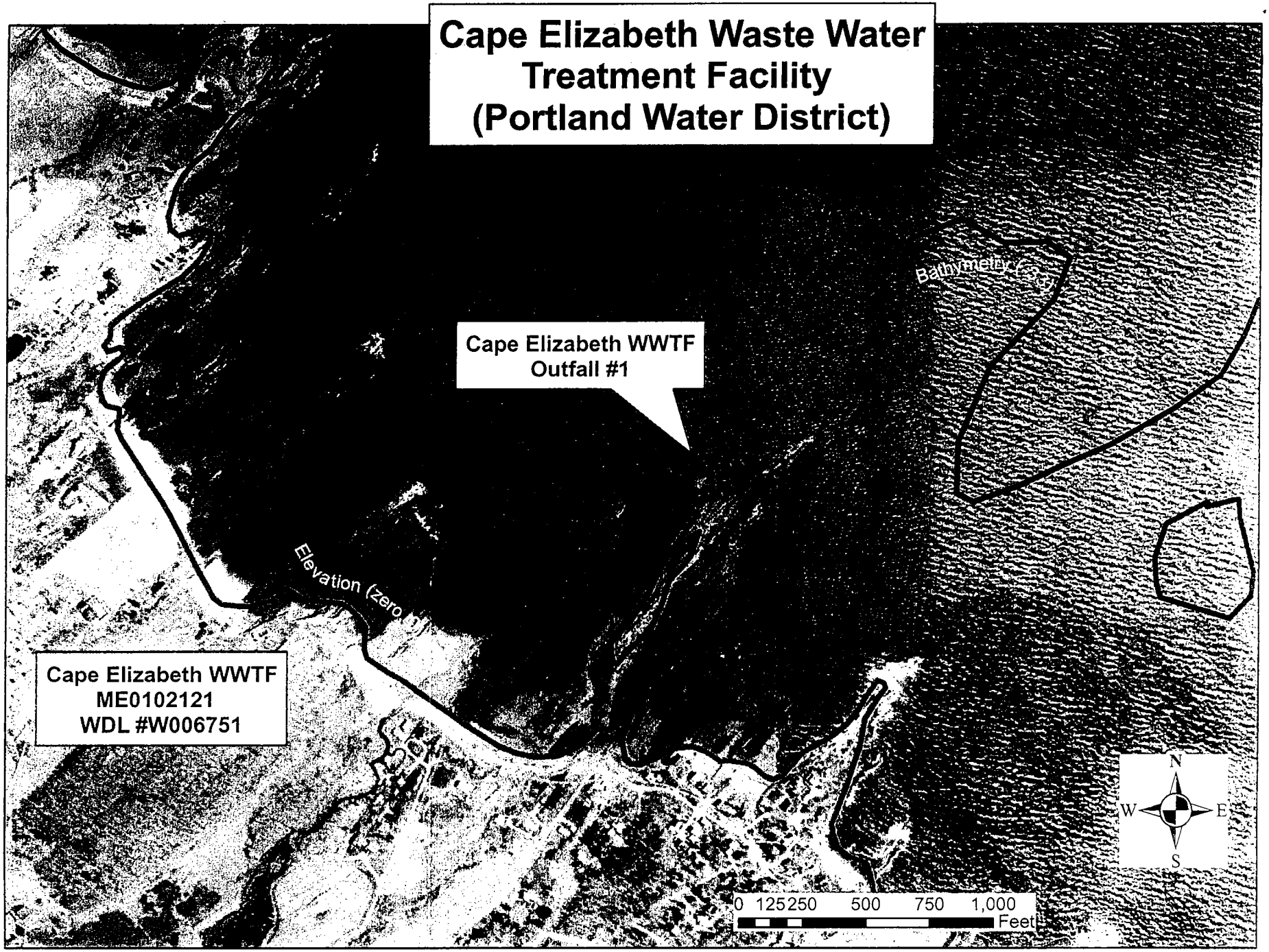
Comment #2 – The permittee requested the Department change the seasonal dates for settleable solids and pH monitoring from June 1st – September 30th to May 15th – September 30th of each year to coincide with timeframe for the fecal coliform bacteria limitations and monitoring requirements.

Response #2 – The Department and permittee discussed this requested by phone. It was agreed that doing so would likely cause confusion on the monthly Discharge Monitoring Report (DMR). The permittee agreed that leaving the seasonal timeframe as proposed in the draft permit (June 1 – September 30) would be the less confusing. Therefore, the permit is being issued as proposed.

ATTACHMENT A

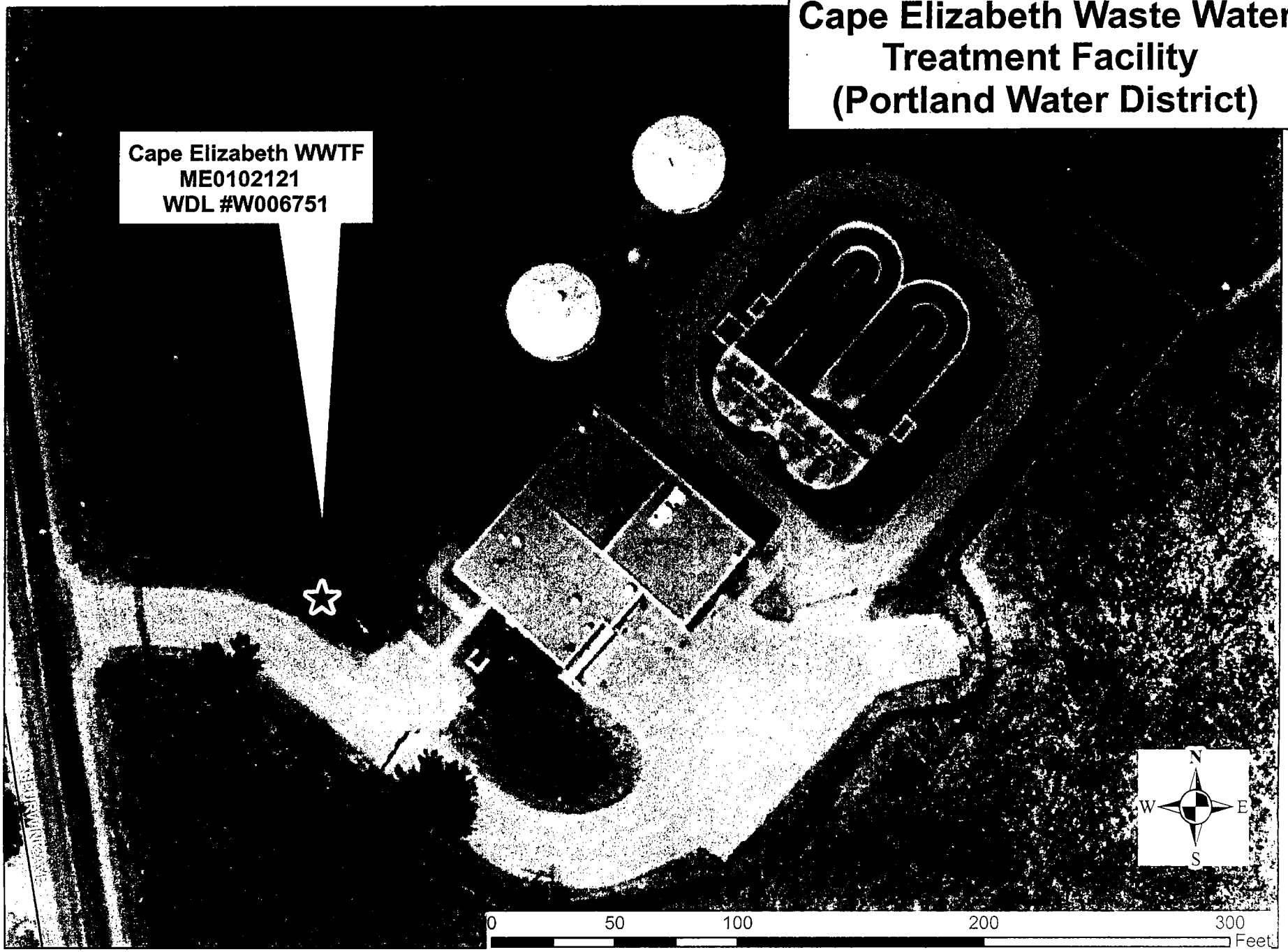


MDEP / DWQM / DS / Cape Elizabeth WWTF (PWD) 27FEB06



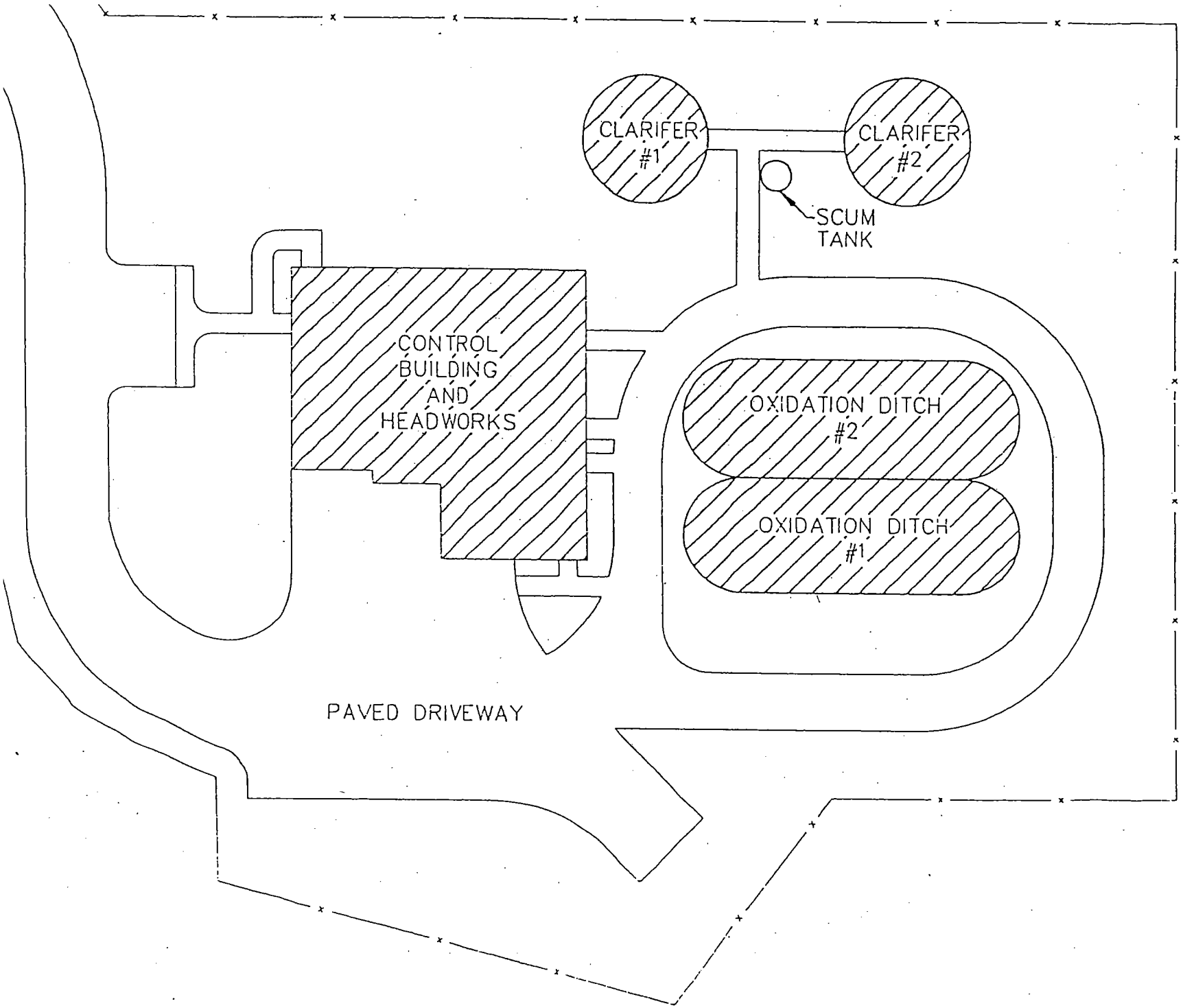
MDEP / DWQM / DS / Cape Elizabeth WWTF (PWD) 27FEB06

Cape Elizabeth Waste Water Treatment Facility (Portland Water District)



MDEP / DWQM / DS / Cape Elizabeth WWTF (PWD) 27FEB06 Closeup

ATTACHMENT B


CLARIFER #1
CLARIFER #2
SCUM TANK
CONTROL BUILDING AND HEADWORKS
OXIDATION DITCH #2
OXIDATION DITCH #1
PAVED DRIVEWAY

ATTACHMENT C

CAPE ELIZABETH
PEABBLES COVE

Flow: 0.5 MGD
Chronic dilution: 74.8:1
Acute dilution: 17.4:1

Species	Test	Test Result %	Sample Date
MYSID SHRIMP	LC50	>77	08/09/1995
SEA URCHIN	C_NOEL	72	08/09/1995
SILVER SIDE	A_NOEL	77	08/09/1995
SILVER SIDE	C_NOEL	77	08/09/1995
SILVER SIDE	LC50	>77	08/09/1995
MYSID SHRIMP	A_NOEL	77	12/03/1995
MYSID SHRIMP	LC50	>77	12/03/1995
SILVER SIDE	A_NOEL	77	12/03/1995
SILVER SIDE	C_NOEL	77	12/03/1995
SILVER SIDE	LC50	>77	12/03/1995
MYSID SHRIMP	A_NOEL	83.3	06/24/1996
MYSID SHRIMP	LC50	>100	06/24/1996
SEA URCHIN	C_NOEL	50	06/24/1996
SILVER SIDE	A_NOEL	100	06/24/1996
SILVER SIDE	C_NOEL	100	06/24/1996
SILVER SIDE	LC50	>100	06/24/1996
MYSID SHRIMP	A_NOEL	71.4	11/18/1996
MYSID SHRIMP	LC50	>100	11/18/1996
SEA URCHIN	C_NOEL	100	11/18/1996
SILVER SIDE	A_NOEL	100	11/18/1996
SILVER SIDE	C_NOEL	100	11/18/1996
SILVER SIDE	LC50	>100	11/18/1996
MYSID SHRIMP	A_NOEL	100.0	11/16/1997
MYSID SHRIMP	LC50	100.0	11/16/1997
SEA URCHIN	C_NOEL	100.0	11/16/1997
SILVER SIDE	A_NOEL	100.0	11/16/1997
SILVER SIDE	C_NOEL	100.0	11/16/1997
SILVER SIDE	LC50	>100.0	11/16/1997
MYSID SHRIMP	A_NOEL	100.0	11/30/1998
MYSID SHRIMP	LC50	>100	11/30/1998
SEA URCHIN	C_NOEL	100.0	11/30/1998
SILVER SIDE	A_NOEL	100.0	11/30/1998
SILVER SIDE	C_NOEL	50.0	11/30/1998
SILVER SIDE	LC50	>100.0	11/30/1998
MYSID SHRIMP	A_NOEL	100.0	05/16/1999
MYSID SHRIMP	LC50	>100.0	05/16/1999
SEA URCHIN	C_NOEL	100.0	05/16/1999
SILVER SIDE	A_NOEL	100.0	05/16/1999
SILVER SIDE	C_NOEL	100.0	05/16/1999
SILVER SIDE	LC50	>100.0	05/16/1999
MYSID SHRIMP	A_NOEL	100.0	09/08/1999
MYSID SHRIMP	LC50	>100.0	09/08/1999

Species	Test	Test Result %	Sample Date
SILVER SIDE	A_NOEL	100.0	09/08/1999
SILVER SIDE	LC50	>100.0	09/08/1999
SILVER SIDE	A_NOEL	100.0	12/07/1999
SILVER SIDE	LC50	>100.0	12/07/1999
MYSID SHRIMP	A_NOEL	46.4	12/27/1999
MYSID SHRIMP	LC50	>100.0	12/27/1999
MYSID SHRIMP	A_NOEL	17.5	03/22/2000
MYSID SHRIMP	LC50	>100.0	03/22/2000
SILVER SIDE	A_NOEL	100.0	03/22/2000
SILVER SIDE	LC50	>100.0	03/22/2000
MYSID SHRIMP	A_NOEL	20.1	08/07/2000
MYSID SHRIMP	LC50	>100.0	08/07/2000
SEA URCHIN	C_NOEL	100.0	08/07/2000
SILVER SIDE	A_NOEL	100.0	08/07/2000
SILVER SIDE	C_NOEL	100.0	08/07/2000
SILVER SIDE	LC50	>100.0	08/07/2000
MYSID SHRIMP	A_NOEL	100	12/05/2000
MYSID SHRIMP	LC50	>100	12/05/2000
SILVER SIDE	A_NOEL	100	12/05/2000
SILVER SIDE	LC50	>100	12/05/2000
MYSID SHRIMP	A_NOEL	100	03/18/2001
MYSID SHRIMP	LC50	>100	03/18/2001
SEA URCHIN	C_NOEL	50	03/18/2001
SILVER SIDE	A_NOEL	100	03/18/2001
SILVER SIDE	C_NOEL	100	03/18/2001
SILVER SIDE	LC50	>100	03/18/2001
MYSID SHRIMP	A_NOEL	100	06/20/2001
MYSID SHRIMP	LC50	>100	06/20/2001
SILVER SIDE	A_NOEL	100	06/20/2001
SILVER SIDE	LC50	>100	06/20/2001
MYSID SHRIMP	A_NOEL	100	08/20/2001
MYSID SHRIMP	LC50	>100	08/20/2001
SEA URCHIN	C_NOEL	100	08/20/2001
SILVER SIDE	A_NOEL	100	08/20/2001
SILVER SIDE	C_NOEL	100	08/20/2001
SILVER SIDE	LC50	>100	08/20/2001
MYSID SHRIMP	A_NOEL	>100	12/04/2001
MYSID SHRIMP	LC50	>100	12/04/2001
SILVER SIDE	A_NOEL	>100	12/04/2001
SILVER SIDE	LC50	>100	12/04/2001
MYSID SHRIMP	A_NOEL	100	06/17/2002
MYSID SHRIMP	LC50	>100	06/17/2002

Species	Test	Test Result %	Sample Date
SEA URCHIN	C_NOEL	50	06/17/2002
SILVER SIDE	A_NOEL	100	06/17/2002
SILVER SIDE	C_NOEL	100	06/17/2002
SILVER SIDE	LC50	>100	06/17/2002
MYSID SHRIMP	A_NOEL	>100	06/15/2003
MYSID SHRIMP	LC50	>100	06/15/2003
SEA URCHIN	C_NOEL	100	06/15/2003
SILVER SIDE	A_NOEL	>100	06/15/2003
SILVER SIDE	C_NOEL	100	06/15/2003
SILVER SIDE	LC50	>100	06/15/2003
MYSID SHRIMP	A_NOEL	>100	04/25/2004
MYSID SHRIMP	LC50	>100	04/25/2004
SEA URCHIN	C_NOEL	100	04/25/2004
SILVER SIDE	A_NOEL	>100	04/25/2004
SILVER SIDE	C_NOEL	100	04/25/2004
SILVER SIDE	LC50	>100	04/25/2004
MYSID SHRIMP	A_NOEL	79.2	06/20/2005
MYSID SHRIMP	LC50	>100	06/20/2005
SEA URCHIN	C_NOEL	50	06/20/2005
SILVER SIDE	A_NOEL	>100	06/20/2005
SILVER SIDE	C_NOEL	100	06/20/2005
SILVER SIDE	LC50	>100	06/20/2005
MYSID SHRIMP	A_NOEL	>100	03/21/2006
SEA URCHIN	C_NOEL	5.7	03/21/2006

ATTACHMENT D

Sample Date: 03/18/2001
Plant flows provided

Total Tests:	144	mon.(MGD)=	0.570
Missing Compounds:	1	day(MGD)=	0.611
Tests With High DL:	2		
M = 0	V = 0	A = 0	
BN = 2	P = 0	other = 0	

Sample Date: 06/20/2005
Plant flows provided

Total Tests:	142	mon.(MGD)=	0.387
Missing Compounds:	0	day(MGD)=	0.373
Tests With High DL:	2		
M = 0	V = 0	A = 0	
BN = 2	P = 0	other = 0	

Sample Date: 12/04/2001
Plant flows not provided

Total Tests:	23		
Tests With High DL:	0		
M = 0	V = 0	A = 0	
BN = 0	P = 0	other = 0	

Sample Date: 06/16/2002
Plant flows provided

Total Tests:	133	mon.(MGD)=	0.296
Missing Compounds:	0	day(MGD)=	0.514
Tests With High DL:	0		
M = 0	V = 0	A = 0	
BN = 0	P = 0	other = 0	

Sample Date: 06/15/2003
Plant flows provided

Total Tests:	133	mon.(MGD)=	0.308
Missing Compounds:	0	day(MGD)=	0.318
Tests With High DL:	2		
M = 0	V = 0	A = 0	
BN = 2	P = 0	other = 0	

Sample Date: 04/25/2004
Plant flows provided

Total Tests:	134	mon.(MGD)=	0.561
Missing Compounds:	0	day(MGD)=	0.319
Tests With High DL:	2		
M = 0	V = 0	A = 0	
BN = 2	P = 0	other = 0	